## **ABSTRACT**

A method for designing a custom bit for use in machining valve seats of a cylinder engine head includes providing a design program to the customer for use with a personal computer. A bit manufacturer may either supply a hard copy of the design program to a customer or allow the customer access to the program electronically through, for example, an Internet web site. The design program provides the customer with a convenient and cost effective method for designing and submitting a custom cutting bit profile that may be used by the bit manufacturer to manufacture the custom cutting bit. The method for designing a custom bit of the present invention eliminates and/or reduces the timely and costly steps of manufacture associated with the current methods of custom bit design.